

49. In a conditionally self-oscillating inverter connected with a DC source and operable to provide an AC voltage at an output, said inverter requiring an input of a manifest trigger pulse for initiating inverter self-oscillation, the improvement comprising:

means to provide said trigger pulse, but only when a load is connected across said output; and

means to make the inverter cease operating whenever said load is disconnected from said terminals;

whereby said inverter is quiescent and receiving no trigger pulses during periods when no load is connected across said output.

50. A ballasting means for a gas discharge lamp, comprising:

inverter means connected with a source of DC voltage and operable, but only after having received a manifest trigger pulse, to provide an AC voltage at an output;

connect means operable to permit connection of said lamp with said output; and

a source of trigger pulses operable to provide said trigger pulse, but only when said lamp is connected with said output.

51. A ballasting means for a fluorescent lamp, said fluorescent lamp having four electrical terminals, said ballasting means comprising:

inverter means connected with a source of DC voltage and operable, but only after having received a manifest trigger pulse, to provide an AC voltage at an output;

connect means operable to permit connection of all of said terminals in circuit with said output; and

a source of trigger pulses operable to provide said trigger pulse, but only when all of said terminals are connected with said output.

REMARKS

In re Claim 45

Examiner rejected claim 45 under 35 U.S.C. 103 as being unpatentable over Nilssen in view of Agnew and Kohler.

Applicant traverses this rejection for the following specific reason.

Claim 45 comprises the following component: "non-linear voltage-limiting impedance means connected across at least one of said pairs of ballast terminals". The significance of this "non-linear impedance means" is described in the last paragraph of page 7 in the specification of Applicant's invention.

There is no indication in any of the cited references to the effect of, or that there is even a value in, providing for such an "impedance means connected across at least one of said pairs of ballast terminals".

Thus, Applicant contends that Examiner's rejection of claim 45 was erroneous.

In re New Claims

Based on the cited references, Applicant has concluded that -- in addition to the particular feature of claim 45 -- the only significantly patentable aspect of Applicant's invention relates to the fact that no trigger pulses are provided to the inverter during periods when the lamp is not connected. The new claims all relate to this aspect.

Perhaps contrary to initial impression, this aspect is a significant one in that it eliminates the considerable amount of Radio Frequency Interference (RFI) that otherwise would occur during the sometimes extended periods when the ballast may be connected with its power supply, but having no lamp connected at its output. The trigger pulses are very brief and contain a substantial amount of high frequency harmonics. When the inverter is in operation, the resulting RFI is not significant in that the trigger pulses get to be heavily damped by the low impedance then represented by the point in the inverter to which the trigger pulses are applied. However, when the inverter is prevented from operating, yet is receiving a steady stream of trigger pulses, the resulting RFI is very pronounced.

All this has been convincingly verified by laboratory evaluations.

In view of above remarks, all of Applicant's claims should now be allowable. However, if Examiner disagrees, he is requested to call Applicant on the telephone, thereby to attempt to resolve any remaining issues in an efficient and expeditious manner.

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